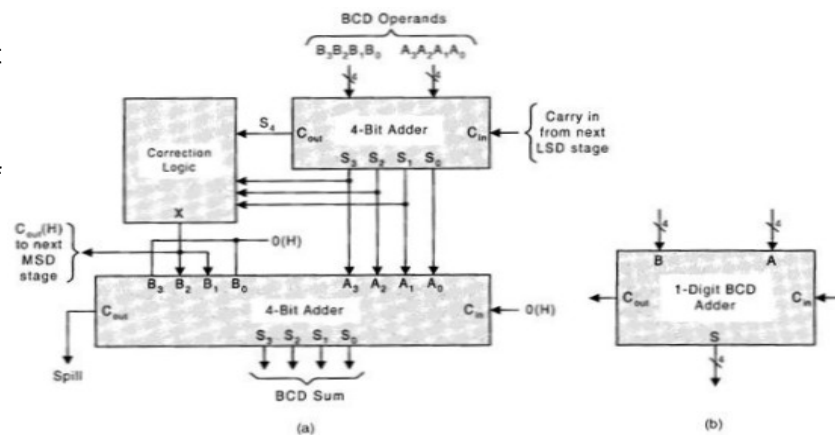


**Karadeniz Technical University**  
**Faculty of Engineering**  
 Dept. of Comp. Engineering  
 BIL 107 Resit Exam

1. Convert  $0.53125_{10}$  to
  - a. base 2 (**binary**) representation,
  - b. **single precision floating point** format (**IEEE754**)
  - c. base 8 (**octal**) representation.

2. Construct the truth table of the Correction Logic block of a 1-Digit BCD adder using **Karnaugh** map to produce the simplest **Sum Of Products (SOP)** expression of the circuit. Do **NOT** draw the circuit of minimum **SOP** expression.



3. The waveforms shown below are applied on the inputs of a **S-R latch**. Determine and draw the **Q** output waveform if the latch is initially **RESET**.

